THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. An apparatus for accumulating products, comprising:

at least one station where the products are to be accumulated;

the station having an entry for the products at one end and an exit for the products at an opposite end;

infeed means for conveying the products to the station entry;

outfeed means for conveying the products away from the station exit; and

moving means for moving the products from the station entry into the station and for moving the products out of the station at the exit to the outfeed means, wherein the moving means is arranged to move one of the products into the station without simultaneously moving one of the products out of the station, so that the station can accumulate the products until the product is required to be removed from the station.

2. An apparatus according to claim 1 and further comprising common moving means for moving the products into the station and for moving the products out of the station.

3. An apparatus according to claim 2, wherein the moving means is operated in such a manner as to move the products out of the station independently of moving the products into the station.

4. An apparatus according to any one of the preceding claims, wherein the apparatus includes a plurality of stations.

5. An apparatus according to claim 4, wherein the stations are provided on a plurality of different levels.

6. An apparatus according to any one of the preceding claims, and further comprising trays for carrying the products.

7. An apparatus according to any one of the preceding claims, wherein the moving means comprise:

tray engagement means for engaging with a part of a tray; and

drive means for driving the moving means.

8. An apparatus according to claim 7, wherein the trays comprise wheels and/or slides to assist in the movement of the trays through the station.

9. An apparatus according to any one of claims 6 to 8, wherein the trays are mechanically conveyed upon a track or rails.

10. An apparatus according to any one of claims 6 to 9, wherein a tray is moved along the station until it contacts or nudges the previous tray loaded in that station.

11. An apparatus according to any one of claims 7 to 10, wherein the tray engagement means is provided on a carrying means which extends along the entire length of the station.

12. An apparatus according to claim 11, wherein the moving means engages a tray at any one of a plurality of selected or indexed positions along the length of the station.

13. An apparatus according to either claim 11 or 12, wherein the carrying means for the tray engagement means comprises a chain or belt conveyor system.

14. An apparatus according to either of claims 11 or 12, wherein the carrying means comprises a reciprocating beam system.

15. An apparatus according to any one of the preceding claims, wherein the infeed means comprises an infeed conveyor for accumulating products and conveying the products to a station.

16. An apparatus according to claim 15, wherein the infeed means further comprises a pusher for transferring one or more products onto a tray.

17. An apparatus according to the preceding claims, wherein the infeed means comprises an infeed elevator for moving trays to any one of a plurality of levels.

18. An apparatus according to any one of the preceding claims, and further comprising an outfeed elevator and an outfeed conveyor.

19. An apparatus according to claim 18 when dependant upon claim 4, wherein the outfeed elevator moves trays from stations at different levels to the outfeed conveyor.

20. An apparatus according to any one of the preceding claims, and further comprising an outfeed pusher for moving a product from a tray onto the outfeed conveyor.

21. An apparatus according to any one of the preceding claims, wherein the apparatus includes a tray accumulation and return means for moving trays from the outfeed elevator, storing the trays until they are required to be used again, and feeding empty trays to the infeed means.

22. An apparatus according to any one of the preceding claims, and further comprising controller means for controlling operation of at least one of the moving means, the infeed and outfeed conveyors and the tray and return means.

23. An apparatus according to claim 22, wherein the controller means is arranged to control movement of two or more of the different parts of the apparatus simultaneously.

24. An apparatus according to claim 1, wherein the apparatus is a refrigerator.

25. A method for accumulating products in at least one station where products are to be accumulated, the station having an entry for the products at one end and an exit for the products at an opposite end, the method including:

conveying the products to the station entry;

moving the products from the station entry into the station;

moving the products out of the station to the station exit; and

conveying the products from the station exit,

wherein the steps of moving the products into is not performed simultaneously with the steps of moving the products out of the station to allow accumulation of the products in the station until the products are required to be removed from the station.